

A **CLAIMS***What is claimed is:*

1. Self-dispersible curable epoxy resins obtainable by

(a) reacting one or more α,β -unsaturated carboxylic acid esters (I)

where R^1 is an aromatic or aliphatic radical containing up to 15 carbon atoms, the substituents R^2 , R^3 and R^4 independently of one another represent hydrogen, branched or unbranched, aliphatic or aromatic groups containing up to 20 carbon atoms or a group $-(CH_2)_n-COOR^1$, where R^1 is as defined above and n is a number of 0 to 10, with

(b) one or more mono-, di- or polyaminopolyalkylene oxide compounds, compounds (a) and (b) being used in such quantities that the equivalent ratio of the reactive hydrogen atoms at the aminonitrogen atoms of (b) to the $C=C$ double bond in the α,β -position to the group $COOR^1$ shown in formula (I) in the carboxylic acid esters (a) is in the range from 10:1 to 1:10,

and subsequently reacting the intermediate product obtained with

20 (c) one or more polyepoxides, the equivalent ratio of oxirane rings in polyepoxide (c) to reactive hydrogen atoms of the mono-, di- or polyaminopolyalkylene oxide compounds used in (b) being adjusted to a value of 100:1 to 1.5:1.

2. Epoxy resins as claimed in claim 1, characterized in that one or more dialkyl maleates is/are used as component (a).

3. Epoxy resins as claimed in claim 1 or 2, characterized in that one or more monoaminopolyethylene oxide compounds is/are used as component (b).

4. Aqueous dispersions containing one or more of the epoxy resins
30 claimed in claims 1 to 3.

5. Aqueous dispersions as claimed in claim 4, characterized in that the mean particle size of the dispersed particles is about 500 nm or less.

6. A process for the production of self-dispersible curable epoxy resins, characterized in that it comprises the steps of

- 5 (a) reacting one or more α,β -unsaturated carboxylic acid esters (I)



10 where R^1 is an aromatic or aliphatic radical containing up to 15 carbon atoms, the substituents R^2 , R^3 and R^4 independently of one another represent hydrogen, branched or unbranched, aliphatic or aromatic groups containing up to 20 carbon atoms or a group $-(CH_2)_n-COOR^1$, where R^1 is as defined above and n is a number of 0 to 10, with

- 15 (b) one or more mono-, di- or polyaminopolyalkylene oxide compounds, compounds (a) and (b) being used in such quantities that the equivalent ratio of the reactive hydrogen atoms at the aminonitrogen atoms of (b) to the C=C double bond in the α,β -position to the group $COOR^1$ shown in formula (I) in the carboxylic acid esters (a) is in the
20 range from 10:1 to 1:10,

and subsequently reacting the intermediate product obtained with

- (c) one or more polyepoxides, the equivalent ratio of oxirane rings in polyepoxide (c) to reactive hydrogen atoms of the mono-, di- or polyaminopolyalkylene oxide compounds used in (b) being adjusted
25 to a value of 100:1 to 1.5:1.

7. The use of the epoxy resins claimed in any of claims 1 to 3 for the production of coatings.

